SAS® Service Operations Optimization

Transform your service organization from a tactical cost center to a strategic profit center

What does SAS® Service Operations Optimization do?

SAS® Service Operations Optimization helps you monitor, analyze and optimize service operations. You can manage the performance of call centers, field service centers and helpdesk centers at a department and individual level; perform detailed Call Pattern Analysis, Call Resolution Analysis and Financial Analysis; and, predict demand and optimize resources through Service Call Forecasting.

Why is SAS® Service Operations Optimization important?

By optimizing resource utilization, SAS Service Operations Optimization reduces the overall costs of servicing and managing existing customers. It also increases customer lifetime value by enabling more product and service cross- and up-sell opportunities, while at the same time boosting customer retention by helping you improve the customer experience.

For whom is SAS® Service Operations Optimization designed?

SAS Service Operations Optimization is designed for the chief service officer (CSO), vice president or director of aftermarket or service support, corporate vice president of service management or customer support, vice president or director of customer experience, and the director of service operations.

Service providers and their network partners in business and consumer environments must balance costs and customer experience across remote service, self-service, call center and field service channels. In this mix, the call center is usually the first point of contact between the service provider and the customer.

To contain service costs and maximize customer satisfaction, service providers rely on call centers to do more than just log trouble tickets. In fact, the vast majority of organizations report that it is very important or extremely important for their call center agents to play active roles in problem diagnosis and resolution.[1]

For most companies contact center and service operations are an important part of improving customer satisfaction and customer lifetime value. Best-in-class organizations must be able to track performance and measure effectiveness regionally and locally, down to the technician and agent level as well as by product and customer.

Pressure and time are constantly moving against agents and supervisors as they react to the changing environments of seasonality, product mix, new releases and other factors they cannot effectively predict. In many of these organizations, much of what passes for planning and optimizing is simply institutional knowledge that becomes diluted over time due to high rates of attrition.

Quality management is an analytical approach to managing and improving the effectiveness, quality and overall experience provided by contact centers, field service operations and helpdesk operations. It is a process that uses goals, key performance indicators (KPIs) and metrics to measure the performance of departments and their agents as well as how the department contributes to overall enterprise goals. This quantitative management approach removes subjectivity and ambiguity from rating how well a contact center, field service operation helpdesk or individual is executing.

Call centers – or multichannel contact centers that incorporate e-mail, chat and telephone contact – are integral to service operations success. As companies vie for competitive edge, they are placing increasing economic importance on post-sales service. In fact, recent research shows that over 85 percent of companies view service support as being very important or extremely important to their overall success, and more than two-thirds report that this importance has grown over the past two years.[2]

SAS Service Operations Optimization helps transform a company's service organization from a tactical cost center to a strategic profit center. It is used to increase customer retention and exceed expectations while at the same time optimizing resources and maximizing productivity.

Key Benefits

Optimized Customer Satisfaction Levels

SAS Service Operations Optimization measures, identifies and optimizes customer satisfaction levels throughout the customer life cycle. This includes measuring the impact that individual agents and technicians have on satisfaction levels and quickly providing valuable feedback to improve the experience. In addition, SAS Service Operations Optimization identifies the

[1, 2] Michael Israel and Mark Vigoroso, *Shoring Up the Front Lines of Product Service: The Call Center.* Aberdeen Group, September 2006.

root cause of customer dissatisfaction and helps organizations quickly resolve both individual performance issues as well as broader systemic ones.

Increased Productivity

SAS Service Operations Optimization increases the productivity of customer service operations by monitoring agent/technician performance and identifying areas that can be improved. This is done by providing near real-time, comprehensive performance dashboards that allow both agents and managers to quickly identify both individual and departmental issues. The result is improved organizational performance, optimization of staff resources and the elimination of unproductive activities.

Quality Improvement and Management

SAS Service Operations Optimization also improves the overall quality of the customer service experience by providing continuous feedback to management and agents. In doing this, it rapidly identifies quality issues and trends occurring at the individual, team or departmental level, allowing the quick resolution of any problems. The result is improved customer service quality.

Solution Overview

Call Pattern Analysis

Understanding call handling performance is critical to the call center. When the operations are performing according to plan, traditional reporting is sufficient. However, when critical issues begin having a negative effect on operations, analytics are usually required to understand the root causes. Call Pattern Analysis provides in-depth data analysis capabilities around call center metrics such as calls handled, wait times, call abandonments, call transfers and more. Analysts seeking to understand critical customer service issues need to be able to define the data for analysis by product, customer, time, geography, service code, call agent, service provider, technician, etc., and perform analyses such as Pareto, Correlation and Trend Analysis. This level of interactivity allows analysts to identify the reasons for particular results and design new ways to monitor and alert the organization before a crisis occurs.

Call Resolution Analysis

Similar to Call Pattern Analysis, Call Resolution Analysis focuses on understanding why something has occurred. Metrics used in Call Resolution Analysis include First Call Resolution (FCR), Mean Time to Repair (MTTR), Call Rates and more. Analysts seeking root cause understanding need to be able to define multiple data parameters on which to perform the relevant analyses. Other key data elements that can be used in Call Resolution Analysis are the free-form text within customer account notes and service records, which can provide valuable information about customer dissatisfaction, or insights into service and product needs and quality.

Additionally, integrating text-based information with structured data enriches predictive modeling capabilities and provides new stores of insightful and valuable information for driving service operations and customer satisfaction forward.

Financial Analysis

Financial Analysis is important in order to understand both the costs and revenues associated with the service operations. On the cost side, these can extend beyond the contact center to parts and on-site service labor. It's important when conducting financial analyses that costs can be broken down into the various cost categories and then aligned with individual service technicians, teams and departments as well as products and customers.

Revenue Analysis focuses on the revenue generated within the contact center in terms of both product sales and service contract sales. Here again, the ability to analyze the data down to the agent level as well as across the product line and customer base is extremely important to fully understand the contributions of each area.

Suspect Claims Analysis

For a claim to be identified as fraudulent there must be deliberate misrepresentation of facts about the service performed. These facts can be related to the product, customer, complaint or work done. As is often the case with any type of fraud, it is extremely difficult to identify a fraudulent case without investigating the facts. Unfortunately, the time and effort required to investigate every claim manually do not justify the costs. To effectively identify fraud, automatic screening systems have to be more intelligent than the perpetrators.

Another important factor in claims fraud is the perpetrator of the fraud. Often this is the service provider. Service cost analysis, service revenue analysis and Suspect Claims Analysis allow organizations to determine profitable contract terms and service offering price points. In addition, Suspect Claims Analysis provides the ability to identify fraudulent activity with respect to claims submission or service costs.

Suspect Claims Analysis provides an automated means to look at 100 percent of the claims filed to detect suspicious claims. This feature does not explicitly flag any claim as clean or fraudulent; instead it provides a score for claims that look suspicious. Analysts can then further evaluate those claims. Suspect Claims Analysis also provides business rules for identifying invalid or incomplete claims.

Performance Ranking

The Service Operations Optimization solution provides analytical methods for identifying problems and investigating, analyzing and easily interpreting service data on an ad hoc basis. The service data includes information related to service providers, technicians, customer complaints, their resolution, etc. The solution delivers the ability to calculate and compare key performance metrics like Service Cost, Service Revenue, First Call Resolution (FCR), Mean Time to Repair (MTTR), etc., for service organizations, service providers and technicians.

Technical Requirements

Operating System Requirements

SAS Service Operations Optimization leverages the SAS Service Intelligence 3.1 architecture. The server tier is implemented in SAS as part of the SAS 9.1 foundation.

Middle Tier

The SAS Service Intelligence architecture mid-tier component enables automatic optimization of data and can be installed in the following operating environments:

- AIX
- HP IPF
- Solaris SPARC
- Windows Server 2003 (32-bit)

Client

The SAS Service Intelligence architecture client is a Java-based client application. This client can be installed in any 32-bit Windows environment and supports the following databases:

- DB2 8.2
- Oracle Database 10G

Key Features

Call Pattern Analysis

- Number of calls received in a period
- Call pickup time
- Call resolved on phone (not routed)
- Call dropped or abandoned before pickup
- Call dropped or abandoned before resolving
- Top reasons for call
- Top products called for
- Calls not completed
- Calls repeated
- Maximum call hold period
- Average call hold
- First call complete percentage
- Number of products serviced in a day
- Number of calls handled in a day
- Tech/Agent man-hours available
- Revenue per tech/agent man-hours

Call Resolution Analysis

- First call resolution analysis
- Incomplete call Analysis
- MTTR analysis
- Repeat failure analysis
- Skill analysis report group
- Deferral analysis report

Financial Analysis

- Cost per call analysis
- Cost by product analysis
- Cost by account head analysis
- Cost by tech/agent analysis
- Revenue by product analysis
- Revenue by account head analysis
- Revenue by tech/agent analysis
- New contract sale
- Revenue forecasting

Suspect Claims Analysis

- By service provider
- Claim ID number
- High labor amount (suspect indicator)
- High overhead amount (suspect indicator)
- High material cost amount (suspect indicator)

Performance Ranking

- Pareto analysis
- Trend charts
- Forecasting
- Analysis of means (ANOM)
- Correlation analysis
- Geographical analysis

About SAS

SAS is the leader in business intelligence and analytical software and services. Customers at 44,000 sites use SAS software to improve performance through insight from data, resulting in faster, more accurate business decisions; more profitable relationships with customers and suppliers; compliance with governmental regulations; research breakthroughs; and better products and processes. Only SAS offers leading data integration, storage, analytics and business intelligence applications within a comprehensive enterprise intelligence platform. Since 1976, SAS has been giving customers around the world THE POWER TO KNOW®.

Figure 1. SAS® Supply Chain Solutions – Intelligence Center

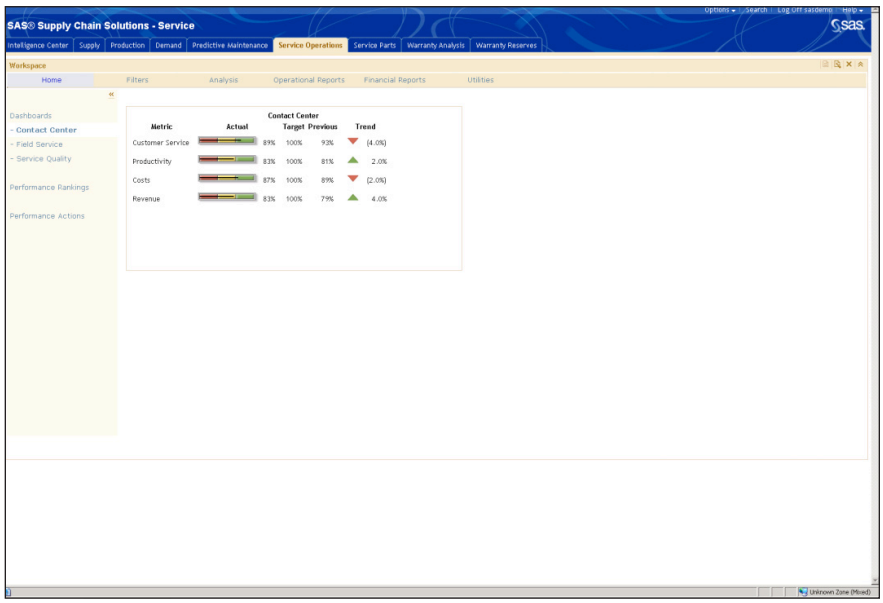

Figure 2. SAS® Supply Chain Solutions-Service – Service Operations

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